

Agilent Ref: 10010819-1
United States Application Serial No. 10/001,688

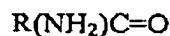
CLAIM AMENDMENTS

The claims are not amended. A complete listing of the claims, including their current status, is set forth below.

1-5 (cancelled)

6. (Previously presented) A method that allows a probe and target to specifically hybridize at a temperature lower than their standard hybridization temperature, comprising:

(a) heating the probe and target in the presence of a chemical component of the formula:



where R is an amino or a methyl group; and

(b) allowing the probe and target to hybridize,
wherein said probe is an oligonucleotide probe covalently linked to the surface of a microarray.

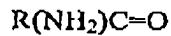
7. (Previously presented) A method as recited in claim 6, wherein said probe and target are heated to a temperature that is lower than their standard hybridization temperature.

8. (Previously presented) A method as recited in claim 6, further comprising adding said chemical compound to a solution prior to heating step (a).

9-14. (cancelled)

15. (Previously presented) A method that allows a probe on a micro array surface to specifically hybridize to a target at a temperature lower than their standard hybridization temperature, comprising:

(a) heating the probe and target in the presence of a chemical component of the formula:



where R is an amino or a methyl group; and

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(b) allowing the probe and target to hybridize,
wherein said probe is an oligonucleotide probe covalently linked to the surface of a
microarray.

16. (Previously presented) A method as recited in claim 15, wherein said probe and target
are heated to a temperature that is lower than their standard hybridization temperature.

17. (Previously presented) A method as recited in claim 15, further comprising adding said
chemical compound to a solution prior to heating step (a).

18. (Previously presented) A method as recited in claim 6, wherein said chemical
component is urea.

19. (Previously presented) A method that allows a probe and target to hybridize at a
temperature lower than their standard hybridization temperature, comprising:
(a) heating the probe and target in the presence of acetamide; and
(b) allowing the probe and target to hybridize,
wherein said probe is an oligonucleotide probe attached to the surface of a glass
substrate.

20. (Previously presented) A method for detecting nucleic acids using a microarray,
comprising:

contacting a sample comprising labeled nucleic acids with an addressable microarray
of oligonucleotide probes covalently linked to a surface of a glass substrate in a hybridization
buffer comprising urea; and

detecting labeled nucleic acids that specifically hybridize to said oligonucleotide
probes.

21. (Previously presented) The method of claim 20, wherein said contacting is done at a
hybridization temperature of about 50°C.

22. (Previously presented) The method of claim 20, wherein urea is present in said
hybridization buffer at a concentration of about 5M.

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23. **(Previously presented)** The method of claim 20, wherein uracil is present in said hybridization buffer at a concentration of about 4M.

24. **(Previously presented)** The method of claim 20, wherein said oligonucleotides are 60-mer oligonucleotides.